

**Listing of Claims:**

1. (Currently Amended) A microscopic image capture apparatus, comprising:

a low magnification optical system and a high magnification optical system;

5 a macro image capture unit which captures an image of wide-angle view of an entire observing slide by the low magnification optical system;

10 a sample image area extraction unit which extracts a sample image area in which a sample image exists from the image of wide-angle view captured by the macro image capture unit;

15 a height coordinate acquisition position setting unit which automatically sets a plurality of positions in an XY direction\* over the sample image area extracted by said sample image area extraction unit in each of which a height coordinate Z is acquired;

a replacing unit which replaces the low magnification optical system with the high magnification optical system;

20 a coordinate read unit which reads a height coordinate of a focal point position of the high magnification optical system in each of the positions in the XY direction\* set by said height coordinate acquisition position setting unit;

a focal point adjusted position computation unit which computes an adjusted position of a focal point in an arbitrary

position in the sample image area using height coordinate data  
25 read by said coordinate read unit over the sample image area; and  
a sample travel unit which transfers a height of a sample to  
the adjusted focal position computed by the focal point adjusted  
position computation unit following horizontal traverse of the  
sample;

30 wherein said height coordinate acquisition position setting  
unit respectively sets, as each of the positions in which the  
height coordinate Z is acquired, a position of a different grid  
point positioned in an area including the sample image ~~in from~~  
among grid points of sections obtained by setting a rectangular  
35 sample area which bounds the sample image area and dividing the  
set rectangular sample ~~image~~ area at predetermined intervals in  
grid form ~~as one of the positions in which the height coordinate~~  
~~Z is acquired.~~

\*should this be "an xy plane"?

2. (Previously Presented) The apparatus according to  
claim 1, wherein said coordinate read unit performs autofocus  
processing with the sample horizontally traveled to a set  
position, and reads a height position of said sample travel unit  
5 after completion of the autofocus processing as the height  
coordinate.

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Claims 3-11 (Canceled).